

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 12. (Canceled).

13. (Previously Presented) An optical liquid crystal modulator, comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than $20 \text{ V}/\mu\text{m}$.

14. (Previously Presented) The optical liquid crystal modulator according to claim 13, wherein:

the liquid crystal modulator is configured as at least one $\lambda/2$ magnification plate which rotates in an electric field, and a single pass through the at least one $\lambda/2$ magnification plate produces at least one tilt angle of ± 22.5 degrees in the at least one $\lambda/2$ magnification plates.

Claim 15. (Canceled).

16. (Currently Amended) ~~The~~ An optical liquid crystal modulator ~~according to claim 13,~~ comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than $20 \text{ V}/\mu\text{m}$, wherein: at a temperature of about 20.0°C , a helical pitch P_0 is between about 0.1 to about $0.5 \mu\text{m}$.

17. (Currently Amended) ~~The~~ An optical liquid crystal modulator ~~according to claim 13,~~ comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than $20 \text{ V}/\mu\text{m}$, wherein: at a temperature of about 20.0°C , a helical pitch P_0 is about $0.22 \mu\text{m}$.

18. (Previously Presented) The optical liquid crystal modulator according to claim 13, further comprising:

a driving voltage of the liquid crystal modulator, wherein a driving frequency of the driving voltage is at least 10 kHz.

19. (Previously Presented) The optical liquid crystal modulator according to claim 13, further comprising:

a driving voltage of the liquid crystal modulator, wherein a driving frequency of the driving voltage is greater than about 50 kHz.

20. (Previously Presented) A method for operating an optical liquid crystal modulator having a ferroelectric liquid crystal, comprising:

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than $20 \text{ V}/\mu\text{m}$,

wherein the ferroelectric liquid crystal has a DHF mode.

21. (Previously Presented) The method for operating an optical liquid crystal modulator according to claim 20, wherein:

the ferroelectric liquid crystal is employed as at least one $\lambda/2$ magnification plate which rotates in an electric field and wherein in response to a single pass through the at least one $\lambda/2$ magnification plate a tilt angle of ± 22.5 degrees is produced in the at least one $\lambda/2$ magnification plate.

Claim 22. (Canceled).

23. (Currently Amended) ~~The A~~ method for operating an optical liquid crystal modulator having a ferroelectric liquid crystal, comprising: according to claim 20,

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than $20 \text{ V}/\mu\text{m}$,

wherein the ferroelectric liquid crystal has a DHF mode and wherein: the ferroelectric liquid crystal has a helical pitch P_0 of about 0.1 to 0.5 at a temperature of about 20.0° C .

24. (Currently Amended) The A method for operating an optical liquid crystal modulator according to claim 20, having a ferroelectric liquid crystal, comprising:

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than 20 V/ μ m,

wherein the ferroelectric liquid crystal has a DHF mode and wherein the ferroelectric liquid crystal has a helical pitch P_0 of about 0.22 μ m at a temperature of about 20.0° C.

25. (Previously Presented) The method for operating an optical liquid crystal modulator of claim 20, further comprising:

providing a driving frequency of a driving voltage of the optical liquid crystal modulator of at least 10 kHz.

26. (Previously Presented) The method for operating an optical liquid crystal modulator of claim 20, further comprising:

providing a driving frequency of a driving voltage of the optical liquid crystal modulator of greater than 50 kHz.